

SEQUENCE LISTING

<110> OKAMOTO, Hiroshi

<120> Reg-binding protein

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<150> JP 1999-164488

<151> 1999-06-10

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<170> PatentIn Ver. 2.0

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<213> Rattus norvegicus

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10009178-620502

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gcaagtgatc cgacgtgacc agagtgggca agagccacag tgaactc atg aca ggc
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Met Thr Gly

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tat acc atg ttg cgg aat ggg gga gtg ggg aac ggt ggt cag acc tgt 224

Tyr Thr Met Leu Arg Asn Gly Gly Val Gly Asn Gly Gly Gln Thr Cys

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atg ctg cgc tgg tcc aac cgc atc cgg ctg acc tgg ctg agt ttc acg 272

Met Leu Arg Trp Ser Asn Arg Ile Arg Leu Thr Trp Leu Ser Phe Thr

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ctg ttc atc atc ctg gtc ttc ttc ccc ctc att gcc cac tat tac ctc 320

Leu Phe Ile Ile Leu Val Phe Phe Pro Leu Ile Ala His Tyr Tyr Leu

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acc act ctg gat gag gca gat gag gcc ggc aag cgc atc ttt ggc ccc 368

10009139-020502

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Arg Ala Gly Asn Glu Leu Cys Glu Val Lys His Val Leu Asp Leu Cys

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cgg atc cgc gag tct gtg agc gaa gag ctt cta cag cta gaa gcc aag 464

Arg Ile Arg Glu Ser Val Ser Glu Glu Leu Leu Gln Leu Glu Ala Lys

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cgg cag gag ctg aac agc gag att gcc aag cta aac ctc aag att gaa 512

Arg Gln Glu Leu Asn Ser Glu Ile Ala Lys Leu Asn Leu Lys Ile Glu

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Ala Cys Lys Lys Ser Ile Glu Asn Ala Lys Gln Asp Leu Leu Gln Leu

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aag aat gtc att agc cag aca gag cac tcc tac aag gag ctg atg gcc 608

Lys Asn Val Ile Ser Gln Thr Glu His Ser Tyr Lys Glu Leu Met Ala

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Gln Asn Gln Pro Lys Leu Ser Leu Pro Ile Arg Leu Leu Pro Glu Lys

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Asp Asp Ala Gly Leu Pro Pro Pro Lys Val Thr Arg Gly Cys Arg Leu

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cac aac tgc ttc gat tac tct cgt tgc cct ctg acg tct ggc ttt cct 752

His Asn Cys Phe Asp Tyr Ser Arg Cys Pro Leu Thr Ser Gly Phe Pro

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gtc ttc gtc tat gac agt gac cag ttt gcc ttt ggg agc tac ctg gac 800

Val Phe Val Tyr Asp Ser Asp Gln Phe Ala Phe Gly Ser Tyr Leu Asp

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cct ttg gtc aag cag gct ttt cag gct aca gtg aga gcc aac gtt tat 848

Pro Leu Val Lys Gln Ala Phe Gln Ala Thr Val Arg Ala Asn Val Tyr

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gtt aca gaa aat gca gcc atc gcc tgc ctg tat gtg gtg tta gtg gga 896

Val Thr Glu Asn Ala Ala Ile Ala Cys Leu Tyr Val Val Leu Val Gly

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gag ata caa gag ccc gct gtg ctg cag cct gcc gac ctt gag aag cag 944

Glu Ile Gln Glu Pro Ala Val Leu Gln Pro Ala Asp Leu Glu Lys Gln

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ctg cat tct ctg cca cac tgg agg aca gac gga cac aac cat gtc atc 992

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Leu His Ser Leu Pro His Trp Arg Thr Asp Gly His Asn His Val Ile
 260 265 270 275

atc aat ctg tcc cgg aag tca gac aca caa aat tta ctg tac aat gtc 1040
 Ile Asn Leu Ser Arg Lys Ser Asp Thr Gln Asn Leu Leu Tyr Asn Val
 280 285 290

agt aca ggt cgg gcc atg gtg gcc cag tct acc ttc tat gct gcc cag 1088
 Ser Thr Gly Arg Ala Met Val Ala Gln Ser Thr Phe Tyr Ala Ala Gln
 295 300 305

tac aga gct ggc ttt gac ttg gtt gtg tca cca ctt gtc cat gcc atg 1136
 Tyr Arg Ala Gly Phe Asp Leu Val Val Ser Pro Leu Val His Ala Met
 310 315 320

tct gaa ccc aac ttc atg gaa atc cca cgt gta act att ttt tca ctt 1184
 Ser Glu Pro Asn Phe Met Glu Ile Pro Arg Val Thr Ile Phe Ser Leu
 325 330 335

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 Gly Arg Gly Glu Glu Glu Gln Glu Lys Leu Gly Val Trp Arg Gly Arg
 340 345 350 355

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Pro Pro Pro Gly Trp Gly Ala Gly Pro

10009178-020502

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Ser Phe Thr Leu Phe Ile Ile Leu Val Phe Phe Pro Leu Ile Ala His
 35 40 45

Tyr Tyr Leu Thr Thr Leu Asp Glu Ala Asp Glu Ala Gly Lys Arg Ile
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Phe Gly Pro Arg Ala Gly Asn Glu Leu Cys Glu Val Lys His Val Leu
 65 70 75 80

Asp Leu Cys Arg Ile Arg Glu Ser Val Ser Glu Glu Leu Leu Gln Leu
 85 90 95

Glu Ala Lys Arg Gln Glu Leu Asn Ser Glu Ile Ala Lys Leu Asn Leu
 100 105 110

Lys Ile Glu Ala Cys Lys Lys Ser Ile Glu Asn Ala Lys Gln Asp Leu
 115 120 125

Leu Gln Leu Lys Asn Val Ile Ser Gln Thr Glu His Ser Tyr Lys Glu

10009178.020502

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Leu Met Ala Gln Asn Gln Pro Lys Leu Ser Leu Pro Ile Arg Leu Leu

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Pro Glu Lys Asp Asp Ala Gly Leu Pro Pro Pro Lys Val Thr Arg Gly

165

170

175

Cys Arg Leu His Asn Cys Phe Asp Tyr Ser Arg Cys Pro Leu Thr Ser

180

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190

Gly Phe Pro Val Phe Val Tyr Asp Ser Asp Gln Phe Ala Phe Gly Ser

195

200

205

Tyr Leu Asp Pro Leu Val Lys Gln Ala Phe Gln Ala Thr Val Arg Ala

210

215

220

Asn Val Tyr Val Thr Glu Asn Ala Ala Ile Ala Cys Leu Tyr Val Val

225

230

235

240

Leu Val Gly Glu Ile Gln Glu Pro Ala Val Leu Gln Pro Ala Asp Leu

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255

Glu Lys Gln Leu His Ser Leu Pro His Trp Arg Thr Asp Gly His Asn

260

265

270

10009478.020502

His Val Ile Ile Asn Leu Ser Arg Lys Ser Asp Thr Gln Asn Leu Leu
 275 280 285

Tyr Asn Val Ser Thr Gly Arg Ala Met Val Ala Gln Ser Thr Phe Tyr
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Ala Ala Gln Tyr Arg Ala Gly Phe Asp Leu Val Val Ser Pro Leu Val
 305 310 315 320

His Ala Met Ser Glu Pro Asn Phe Met Glu Ile Pro Arg Val Thr Ile
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Phe Ser Leu Gly Arg Gly Glu Glu Glu Gln Glu Lys Leu Gly Val Trp
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Arg Gly Arg Pro Pro Pro Gly Trp Gly Ala Gly Pro
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Gly Gln Thr Cys Met Leu Arg Trp Ser Asn Arg Ile Arg Leu Thr Trp

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ctg agt ttc acg ctg ttc atc atc ctg gtc ttc ttc ccc ctc att gcc 145

Leu Ser Phe Thr Leu Phe Ile Ile Leu Val Phe Phe Pro Leu Ile Ala

35 40 45

cac tat tac ctc acc act ctg gat gag gca gat gag gcc ggc aag cgc 193

His Tyr Tyr Leu Thr Thr Leu Asp Glu Ala Asp Glu Ala Gly Lys Arg

50 55 60

atc ttt ggc ccc cgg gct ggc aac gag ctc tgt gag gta aag cac gtc 241

Ile Phe Gly Pro Arg Ala Gly Asn Glu Leu Cys Glu Val Lys His Val

65 70 75

cta gat ctt tgt cgg atc cgc gag tct gtg agc gaa gag ctt cta cag 289

Leu Asp Leu Cys Arg Ile Arg Glu Ser Val Ser Glu Glu Leu Leu Gln

80 85 90 95

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cta gaa gcc aag cgg cag gag ctg aac agc gag att gcc aag cta aac 337

Leu Glu Ala Lys Arg Gln Glu Leu Asn Ser Glu Ile Ala Lys Leu Asn

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ctc aag att gaa gcc tgt aag aag agt ata gag aac gcc aag cag gac 385

Leu Lys Ile Glu Ala Cys Lys Lys Ser Ile Glu Asn Ala Lys Gln Asp

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ctg ctg cag ctc aag aat gtc att agc cag aca gag cac tcc tac aag 433

Leu Leu Gln Leu Lys Asn Val Ile Ser Gln Thr Glu His Ser Tyr Lys

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gag ctg atg gcc cag aac cag ccc aaa ctg tca ctg ccc atc cgg ctg 481

Glu Leu Met Ala Gln Asn Gln Pro Lys Leu Ser Leu Pro Ile Arg Leu

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ctc cct gag aag gat gac gct ggc ctt cca ccc ccc aag gtc act cgg 529

Leu Pro Glu Lys Asp Asp Ala Gly Leu Pro Pro Pro Lys Val Thr Arg

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ggt tgc cgg cta cac aac tgc ttc gat tac tct cgt tgc cct ctg acg 577

Gly Cys Arg Leu His Asn Cys Phe Asp Tyr Ser Arg Cys Pro Leu Thr

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tct ggc ttt cct gtc ttc gtc tat gac agt gac cag ttt gcc ttt ggg 625

10009178.020502

Ser Gly Phe Pro Val Phe Val Tyr Asp Ser Asp Gln Phe Ala Phe Gly
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agc tac ctg gac cct ttg gtc aag cag gct ttt cag gct aca gtg aga 673
 Ser Tyr Leu Asp Pro Leu Val Lys Gln Ala Phe Gln Ala Thr Val Arg
 210 215 220

gcc aac gtt tat gtt aca gaa aat gca gcc atc gcc tgc ctg tat gtg 721
 Ala Asn Val Tyr Val Thr Glu Asn Ala Ala Ile Ala Cys Leu Tyr Val
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gtg tta gtg gga gag ata caa gag ccc gct gtg ctg cag cct gcc gac 769
 Val Leu Val Gly Glu Ile Gln Glu Pro Ala Val Leu Gln Pro Ala Asp
 240 245 250 255

ctt gag aag cag ctg cat tct ctg cca cac tgg agg aca gac gga cac 817
 Leu Glu Lys Gln Leu His Ser Leu Pro His Trp Arg Thr Asp Gly His
 260 265 270

aac cat gtc atc atc aat ctg tcc cgg aag tca gac aca caa aat tta 865
 Asn His Val Ile Ile Asn Leu Ser Arg Lys Ser Asp Thr Gln Asn Leu
 275 280 285

ctg tac aat gtc agt aca ggt cgg gcc atg gtg gcc cag tct acc ttc 913
 Leu Tyr Asn Val Ser Thr Gly Arg Ala Met Val Ala Gln Ser Thr Phe
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10009178-0005002

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Tyr Ala Ala Gln Tyr Arg Ala Gly Phe Asp Leu Val Val Ser Pro Leu

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gtc cat gcc atg tct gaa ccc aac ttc atg gaa atc cca ccg cag gtg 1009

Val His Ala Met Ser Glu Pro Asn Phe Met Glu Ile Pro Pro Gln Val

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cca gtt aag cgg aaa tat ctc ttc act ttc cag ggt gag aag att gag 1057

Pro Val Lys Arg Lys Tyr Leu Phe Thr Phe Gln Gly Glu Lys Ile Glu

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tct cta aga tct agc ctt cag gag gcc cgt tcc ttt gag gaa gaa atg 1105

Ser Leu Arg Ser Ser Leu Gln Glu Ala Arg Ser Phe Glu Glu Glu Met

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gag ggt gac cct ccg gcc gac tat gat gat cga atc att gcc acc ctc 1153

Glu Gly Asp Pro Pro Ala Asp Tyr Asp Asp Arg Ile Ile Ala Thr Leu

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aag gcc gta cag gac agc aag cta gat cag gtg ctg gta gaa ttt act 1201

Lys Ala Val Gln Asp Ser Lys Leu Asp Gln Val Leu Val Glu Phe Thr

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 Gly Glu Arg Glu Asp Arg Leu Glu Leu Leu Lys Leu Ser Thr Phe Ala
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ctc atc atc act ccc ggg gac ccg agc ctg ctt atc tca tct ggc tgt 1345
 Leu Ile Ile Thr Pro Gly Asp Pro Ser Leu Leu Ile Ser Ser Gly Cys
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 Ala Thr Arg Leu Phe Glu Ala Leu Glu Val Gly Ala Val Pro Val Val
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 Leu Gly Glu Gln Val Gln Leu Pro Tyr His Asp Met Leu Gln Trp Asn
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gag gcc gcc cta gtg gtg ccc aag cct cgt gtt aca gag gtt cac ttc 1489
 Glu Ala Ala Leu Val Val Pro Lys Pro Arg Val Thr Glu Val His Phe
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ctg tta cga agt ctg tca gac agt gat ctg ttg gct atg agg cgg caa 1537
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Gly Arg Phe Leu Trp Glu Thr Tyr Phe Ser Thr Ala Asp Ser Ile Phe

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Asn Thr Val Leu Ala Met Ile Arg Thr Arg Ile Gln Ile Pro Ala Ala

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ccc atc cgg gaa gag gta gca gct gag atc ccc cat cgt tca ggc aag 1681

Pro Ile Arg Glu Glu Val Ala Ala Glu Ile Pro His Arg Ser Gly Lys

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gca gct ggt act gac ccc aac atg gct gac aat ggg gac ctg gac ctg 1729

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ggg ccg gta gag aca gag ccg ccc tat gcc tca cct aaa tac ctc cgt 1777

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Asn Phe Thr Leu Thr Val Thr Asp Cys Tyr Arg Ser Trp Asn Ser Ala

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ggc ggt ggg gct ggg ggc tct ggc aag gag ttc cag gca gcg ctt gga 1969
 Gly Gly Gly Ala Gly Gly Ser Gly Lys Glu Phe Gln Ala Ala Leu Gly
 640 645 650 655

ggc aat gtc cag cgg gag cag ttc aca gtt gtg atg ctg acc tac gag 2017
 Gly Asn Val Gln Arg Glu Gln Phe Thr Val Val Met Leu Thr Tyr Glu
 660 665 670

cgg gag gaa gtg ctc atg aac tcc ctg gag agg ctc aat ggc ctc ccc 2065
 Arg Glu Glu Val Leu Met Asn Ser Leu Glu Arg Leu Asn Gly Leu Pro
 675 680 685

tac ctg aac aag gta gtg gtg gtg tgg aac tct ccc aag ctg ccc tcg 2113
 Tyr Leu Asn Lys Val Val Val Val Trp Asn Ser Pro Lys Leu Pro Ser
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gag gac ctt ttg tgg cca gac att ggt gtc ccc atc atg gtt gtc cgt 2161
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Thr Glu Lys Asn Ser Leu Asn Asn Arg Phe Leu Pro Trp Asn Glu Ile

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gag aca gag gca ata ttg tcc atc gat gac gat gcc cac ctc cgc cat 2257

Glu Thr Glu Ala Ile Leu Ser Ile Asp Asp Asp Ala His Leu Arg His

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gat gaa atc atg ttc ggg ttt cgg gtg tgg aga gag gcg cgt gat cgc 2305

Asp Glu Ile Met Phe Gly Phe Arg Val Trp Arg Glu Ala Arg Asp Arg

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Ile Val Gly Phe Pro Gly Arg Tyr His Ala Trp Asp Ile Pro His Gln

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tcc tgg ctc tac aac tcc aac tac tcc tgt gag ctg tcc atg gtg ctg 2401

Ser Trp Leu Tyr Asn Ser Asn Tyr Ser Cys Glu Leu Ser Met Val Leu

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acg ggt gct gcc ttc ttt cac aag tat tac gcc tac ctg tat tct tat 2449

Thr Gly Ala Ala Phe Phe His Lys Tyr Tyr Ala Tyr Leu Tyr Ser Tyr

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Val Met Pro Gln Ala Ile Arg Asp Met Val Asp Glu Tyr Ile Asn Cys
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 Glu Asp Ile Ala Met Asn Phe Leu Val Ser His Ile Thr Arg Lys Pro
 835 840 845

ccc atc aag gtg aca tcg agg tgg act ttt cga tgc ccg ggg tgc cct 2593
 Pro Ile Lys Val Thr Ser Arg Trp Thr Phe Arg Cys Pro Gly Cys Pro
 850 855 860

cag gcc ctg tcc cac gat gac tct cac ttt cat gag cgg cac aag tgt 2641
 Gln Ala Leu Ser His Asp Asp Ser His Phe His Glu Arg His Lys Cys
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atc aac ttt ttt gtc aag gtg tac ggc tat atg cct ctc ctg tac aca 2689
 Ile Asn Phe Phe Val Lys Val Tyr Gly Tyr Met Pro Leu Leu Tyr Thr
 880 885 890 895

cag ttt agg gtg gac tct gtg ctc ttc aag acc cgc ctg ccc cat gac 2737
 Gln Phe Arg Val Asp Ser Val Leu Phe Lys Thr Arg Leu Pro His Asp
 900 905 910

aag acc aag tgc ttc aag ttc atc tagggccttg ccagttctga ggagaagaca
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Lys Thr Lys Cys Phe Lys Phe Ile

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<212> PRT

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30

Ser Phe Thr Leu Phe Ile Ile Leu Val Phe Phe Pro Leu Ile Ala His

35

40

45

Tyr Tyr Leu Thr Thr Leu Asp Glu Ala Asp Glu Ala Gly Lys Arg Ile

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55

60

Phe Gly Pro Arg Ala Gly Asn Glu Leu Cys Glu Val Lys His Val Leu

65

70

75

80

Asp Leu Cys Arg Ile Arg Glu Ser Val Ser Glu Glu Leu Leu Gln Leu

85

90

95

Glu Ala Lys Arg Gln Glu Leu Asn Ser Glu Ile Ala Lys Leu Asn Leu

100

105

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Lys Ile Glu Ala Cys Lys Lys Ser Ile Glu Asn Ala Lys Gln Asp Leu

10009178.020502

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120

125

Leu Gln Leu Lys Asn Val Ile Ser Gln Thr Glu His Ser Tyr Lys Glu

130

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140

Leu Met Ala Gln Asn Gln Pro Lys Leu Ser Leu Pro Ile Arg Leu Leu

145

150

155

160

Pro Glu Lys Asp Asp Ala Gly Leu Pro Pro Pro Lys Val Thr Arg Gly

165

170

175

Cys Arg Leu His Asn Cys Phe Asp Tyr Ser Arg Cys Pro Leu Thr Ser

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Gly Phe Pro Val Phe Val Tyr Asp Ser Asp Gln Phe Ala Phe Gly Ser

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205

Tyr Leu Asp Pro Leu Val Lys Gln Ala Phe Gln Ala Thr Val Arg Ala

210

215

220

Asn Val Tyr Val Thr Glu Asn Ala Ala Ile Ala Cys Leu Tyr Val Val

225

230

235

240

Leu Val Gly Glu Ile Gln Glu Pro Ala Val Leu Gln Pro Ala Asp Leu

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Glu Lys Gln Leu His Ser Leu Pro His Trp Arg Thr Asp Gly His Asn
 260 265 270

His Val Ile Ile Asn Leu Ser Arg Lys Ser Asp Thr Gln Asn Leu Leu
 275 280 285

Tyr Asn Val Ser Thr Gly Arg Ala Met Val Ala Gln Ser Thr Phe Tyr
 290 295 300

Ala Ala Gln Tyr Arg Ala Gly Phe Asp Leu Val Val Ser Pro Leu Val
 305 310 315 320

His Ala Met Ser Glu Pro Asn Phe Met Glu Ile Pro Pro Gln Val Pro
 325 330 335

Val Lys Arg Lys Tyr Leu Phe Thr Phe Gln Gly Glu Lys Ile Glu Ser
 340 345 350

Leu Arg Ser Ser Leu Gln Glu Ala Arg Ser Phe Glu Glu Glu Met Glu
 355 360 365

Gly Asp Pro Pro Ala Asp Tyr Asp Asp Arg Ile Ile Ala Thr Leu Lys
 370 375 380

Ala Val Gln Asp Ser Lys Leu Asp Gln Val Leu Val Glu Phe Thr Cys
 385 390 395 400

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Lys Asn Gln Pro Lys Pro Ser Leu Pro Thr Glu Trp Ala Leu Cys Gly
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Glu Arg Glu Asp Arg Leu Glu Leu Leu Lys Leu Ser Thr Phe Ala Leu
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Ile Ile Thr Pro Gly Asp Pro Ser Leu Leu Ile Ser Ser Gly Cys Ala
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Thr Arg Leu Phe Glu Ala Leu Glu Val Gly Ala Val Pro Val Val Leu
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Gly Glu Gln Val Gln Leu Pro Tyr His Asp Met Leu Gln Trp Asn Glu
 465 470 475 480

Ala Ala Leu Val Val Pro Lys Pro Arg Val Thr Glu Val His Phe Leu
 485 490 495

Leu Arg Ser Leu Ser Asp Ser Asp Leu Leu Ala Met Arg Arg Gln Gly
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Arg Phe Leu Trp Glu Thr Tyr Phe Ser Thr Ala Asp Ser Ile Phe Asn
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Thr Val Leu Ala Met Ile Arg Thr Arg Ile Gln Ile Pro Ala Ala Pro

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530

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Ile Arg Glu Glu Val Ala Ala Glu Ile Pro His Arg Ser Gly Lys Ala

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555

560

Ala Gly Thr Asp Pro Asn Met Ala Asp Asn Gly Asp Leu Asp Leu Gly

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Phe Thr Leu Thr Val Thr Asp Cys Tyr Arg Ser Trp Asn Ser Ala Pro

595

600

605

Gly Pro Phe His Leu Phe Pro His Thr Pro Phe Asp Pro Val Leu Pro

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615

620

Ser Glu Ala Lys Phe Leu Gly Ser Gly Thr Gly Phe Arg Pro Ile Gly

625

630

635

640

Gly Gly Ala Gly Gly Ser Gly Lys Glu Phe Gln Ala Ala Leu Gly Gly

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Asn Val Gln Arg Glu Gln Phe Thr Val Val Met Leu Thr Tyr Glu Arg

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665

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Glu Glu Val Leu Met Asn Ser Leu Glu Arg Leu Asn Gly Leu Pro Tyr

675

680

685

Leu Asn Lys Val Val Val Val Trp Asn Ser Pro Lys Leu Pro Ser Glu

690

695

700

Asp Leu Leu Trp Pro Asp Ile Gly Val Pro Ile Met Val Val Arg Thr

705

710

715

720

Glu Lys Asn Ser Leu Asn Asn Arg Phe Leu Pro Trp Asn Glu Ile Glu

725

730

735

Thr Glu Ala Ile Leu Ser Ile Asp Asp Asp Ala His Leu Arg His Asp

740

745

750

Glu Ile Met Phe Gly Phe Arg Val Trp Arg Glu Ala Arg Asp Arg Ile

755

760

765

Val Gly Phe Pro Gly Arg Tyr His Ala Trp Asp Ile Pro His Gln Ser

770

775

780

Trp Leu Tyr Asn Ser Asn Tyr Ser Cys Glu Leu Ser Met Val Leu Thr

785

790

795

800

Gly Ala Ala Phe Phe His Lys Tyr Tyr Ala Tyr Leu Tyr Ser Tyr Val

805

810

815

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Met Pro Gln Ala Ile Arg Asp Met Val Asp Glu Tyr Ile Asn Cys Glu

820

825

830

Asp Ile Ala Met Asn Phe Leu Val Ser His Ile Thr Arg Lys Pro Pro

835

840

845

Ile Lys Val Thr Ser Arg Trp Thr Phe Arg Cys Pro Gly Cys Pro Gln

850

855

860

Ala Leu Ser His Asp Asp Ser His Phe His Glu Arg His Lys Cys Ile

865

870

875

880

Asn Phe Phe Val Lys Val Tyr Gly Tyr Met Pro Leu Leu Tyr Thr Gln

885

890

895

Phe Arg Val Asp Ser Val Leu Phe Lys Thr Arg Leu Pro His Asp Lys

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905

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Thr Lys Cys Phe Lys Phe Ile

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<213> Homo sapiens

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Met Thr Gly Tyr Thr Met Leu Arg Asn Gly Gly Ala Gly Asn Gly Gly
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Gln Thr Cys Met Leu Arg Trp Ser Asn Arg Ile Arg Leu Thr Trp Leu
20 25 30

Ser Phe Thr Leu Phe Val Ile Leu Val Phe Phe Pro Leu Ile Ala His
35 40 45

Tyr Tyr Leu Thr Thr Leu Asp Glu Ala Asp Glu Ala Gly Lys Arg Ile
50 55 60

Phe Gly Pro Arg Val Gly Asn Glu Leu Cys Glu Val Lys His Val Leu
65 70 75 80

Asp Leu Cys Arg Ile Arg Glu Ser Val Ser Glu Glu Leu Leu Gln Leu
85 90 95

Glu Ala Lys Arg Gln Glu Leu Asn Ser Glu Ile Ala Lys Leu Asn Leu
100 105 110

Lys Ile Glu Ala Cys Lys Lys Ser Ile Glu Asn Ala Lys Gln Asp Leu
115 120 125

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Leu Gln Leu Lys Asn Val Ile Ser Gln Thr Glu His Ser Tyr Lys Glu

130

135

140

Leu Met Ala Gln Asn Gln Pro Lys Leu Ser Leu Pro Ile Arg Leu Leu

145

150

155

160

Pro Glu Lys Asp Asp Ala Gly Leu Pro Pro Pro Lys Ala Thr Arg Gly

165

170

175

Cys Arg Leu His Asn Cys Phe Asp Tyr Ser Arg Cys Pro Leu Thr Ser

180

185

190

Gly Phe Pro Val Tyr Val Tyr Asp Ser Asp Gln Phe Val Phe Gly Ser

195

200

205

Tyr Leu Asp Pro Leu Val Lys Gln Ala Phe Gln Ala Thr Ala Arg Ala

210

215

220

Asn Val Tyr Val Thr Glu Asn Ala Asp Ile Ala Cys Leu Tyr Val Ile

225

230

235

240

Leu Val Gly Glu Met Gln Glu Pro Val Val Leu Arg Pro Ala Glu Leu

245

250

255

Glu Lys Gln Leu Tyr Ser Leu Pro His Trp Arg Thr Asp Gly His Asn

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260

265

270

His Val Ile Ile Asn Leu Ser Arg Lys Ser Asp Thr Gln Asn Leu Leu

275

280

285

Tyr Asn Val Ser Thr Gly Arg Ala Met Val Ala Gln Ser Thr Phe Tyr

290

295

300

Thr Val Gln Tyr Arg Pro Gly Phe Asp Leu Val Val Ser Pro Leu Val

305

310

315

320

His Ala Met Ser Glu Pro Asn Phe Met Glu Ile Pro Pro Gln Val Pro

325

330

335

Val Lys Arg Lys Tyr Leu Phe Thr Phe Gln Gly Glu Lys Ile Glu Ser

340

345

350

Leu Arg Ser Ser Leu Gln Glu Ala Arg Ser Phe Glu Glu Glu Met Glu

355

360

365

Gly Asp Pro Pro Ala Asp Tyr Asp Asp Arg Ile Ile Ala Thr Leu Lys

370

375

380

Ala Val Gln Asp Ser Lys Leu Asp Gln Val Leu Val Glu Phe Thr Cys

385

390

395

400

10009178-020502

Lys Asn Gln Pro Lys Pro Ser Leu Pro Thr Glu Trp Ala Leu Cys Gly

405

410

415

Glu Arg Glu Asp Arg Leu Glu Leu Leu Lys Leu Ser Thr Phe Ala Leu

420

425

430

Ile Ile Thr Pro Gly Asp Pro Arg Leu Val Ile Ser Ser Gly Cys Ala

435

440

445

Thr Arg Leu Phe Glu Ala Leu Glu Val Gly Ala Val Pro Val Val Leu

450

455

460

Gly Glu Gln Val Gln Leu Pro Tyr Gln Asp Met Leu Gln Trp Asn Glu

465

470

475

480

Ala Ala Leu Val Val Pro Lys Pro Arg Val Thr Glu Val His Phe Leu

485

490

495

Leu Arg Ser Leu Ser Asp Ser Asp Leu Leu Ala Met Arg Arg Gln Gly

500

505

510

Arg Phe Leu Trp Glu Thr Tyr Phe Ser Thr Ala Asp Ser Ile Phe Asn

515

520

525

Thr Val Leu Ala Met Ile Arg Thr Arg Ile Gln Ile Pro Ala Ala Pro

530

535

540

205020"82160001

Ile Arg Glu Glu Ala Ala Ala Glu Ile Pro His Arg Ser Gly Lys Ala
 545 550 555 560

Ala Gly Thr Asp Pro Asn Met Ala Asp Asn Gly Asp Leu Asp Leu Gly
 565 570 575

Pro Val Glu Thr Glu Pro Pro Tyr Ala Ser Pro Arg Tyr Leu Arg Asn
 580 585 590

Phe Thr Leu Thr Val Thr Asp Phe Tyr Arg Ser Trp Asn Cys Ala Pro
 595 600 605

Gly Pro Phe His Leu Phe Pro His Thr Pro Phe Asp Pro Val Leu Pro
 610 615 620

Ser Glu Ala Lys Phe Leu Gly Ser Gly Thr Gly Phe Arg Pro Ile Gly
 625 630 635 640

Gly Gly Ala Gly Gly Ser Gly Lys Glu Phe Gln Ala Ala Leu Gly Gly
 645 650 655

Asn Val Pro Arg Glu Gln Phe Thr Val Val Met Leu Thr Tyr Glu Arg
 660 665 670

Glu Glu Val Leu Met Asn Ser Leu Glu Arg Leu Asn Gly Leu Pro Tyr

200903178-020502

675

680

685

Leu Asn Lys Val Val Val Val Trp Asn Ser Pro Lys Leu Pro Ser Glu
 690 695 700

Asp Leu Leu Trp Pro Asp Ile Gly Val Pro Ile Met Val Val Arg Thr
 705 710 715 720

Glu Lys Asn Ser Leu Asn Asn Arg Phe Leu Pro Trp Asn Glu Ile Glu
 725 730 735

Thr Glu Ala Ile Leu Ser Ile Asp Asp Asp Ala His Leu Arg His Asp
 740 745 750

Glu Ile Met Phe Gly Phe Arg Val Trp Arg Glu Ala Arg Asp Arg Ile
 755 760 765

Val Gly Phe Pro Gly Arg Tyr His Ala Trp Asp Ile Pro His Gln Ser
 770 775 780

Trp Leu Tyr Asn Ser Asn Tyr Ser Cys Glu Leu Ser Met Val Leu Thr
 785 790 795 800

Gly Ala Ala Phe Phe His Lys Tyr Tyr Ala Tyr Leu Tyr Ser Tyr Val
 805 810 815

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Met Pro Gln Ala Ile Arg Asp Met Val Asp Glu Tyr Ile Asn Cys Glu
 820 825 830

Asp Ile Ala Met Asn Phe Leu Val Ser His Ile Thr Arg Lys Pro Pro
 835 840 845

Ile Lys Val Thr Ser Arg Trp Thr Phe Arg Cys Pro Gly Cys Pro Gln
 850 855 860

Ala Leu Ser His Asp Asp Ser His Phe His Glu Arg His Lys Cys Ile
 865 870 875 880

Asn Phe Phe Val Lys Val Tyr Gly Tyr Met Pro Leu Leu Tyr Thr Gln
 885 890 895

Phe Arg Val Asp Ser Val Leu Phe Lys Thr Arg Leu Pro His Asp Lys
 900 905 910

Thr Lys Cys Phe Lys Phe Ile
 915

<210> 6

<211> 718

<212> PRT

<213> Homo sapiens

10009478.020502

<400> 6

Met Cys Ala Ser Val Lys Tyr Asn Ile Arg Gly Pro Ala Leu Ile Pro
 1 5 10 15

Arg Met Lys Thr Lys His Arg Ile Tyr Tyr Ile Thr Leu Phe Ser Ile
 20 25 30

Val Leu Leu Gly Leu Ile Ala Thr Gly Met Phe Gln Phe Trp Pro His
 35 40 45

Ser Ile Glu Ser Ser Asn Asp Trp Asn Val Glu Lys Arg Ser Ile Arg
 50 55 60

Asp Val Pro Val Val Arg Leu Pro Ala Asp Ser Pro Ile Pro Glu Arg
 65 70 75 80

Gly Asp Leu Ser Cys Arg Met His Thr Cys Phe Asp Val Tyr Arg Cys
 85 90 95

Gly Phe Asn Pro Lys Asn Lys Ile Lys Val Tyr Ile Tyr Ala Leu Lys
 100 105 110

Lys Tyr Val Asp Asp Phe Gly Val Ser Val Ser Asn Thr Ile Ser Arg
 115 120 125

10009178.020502

Glu Tyr Asn Glu Leu Leu Met Ala Ile Ser Asp Ser Asp Tyr Tyr Thr
 130 135 140

Asp Asp Ile Asn Arg Ala Cys Leu Phe Val Pro Ser Ile Asp Val Leu
 145 150 155 160

Asn Gln Asn Thr Leu Arg Ile Lys Glu Thr Ala Gln Ala Met Ala Gln
 165 170 175

Leu Ser Arg Trp Asp Arg Gly Thr Asn His Leu Leu Phe Asn Met Leu
 180 185 190

Pro Gly Gly Pro Pro Asp Tyr Asn Thr Ala Leu Asp Val Pro Arg Asp
 195 200 205

Arg Ala Leu Leu Ala Gly Gly Gly Phe Ser Thr Trp Thr Tyr Arg Gln
 210 215 220

Gly Tyr Asp Val Ser Ile Pro Val Tyr Ser Pro Leu Ser Ala Glu Val
 225 230 235 240

Asp Leu Pro Glu Lys Gly Pro Gly Pro Arg Gln Tyr Phe Leu Leu Ser
 245 250 255

Ser Gln Val Gly Leu His Pro Glu Tyr Arg Glu Asp Leu Glu Ala Leu
 260 265 270

205030" 84T6000T

Gln Val Lys His Gly Glu Ser Val Leu Val Leu Asp Lys Cys Thr Asn

275

280

285

Leu Ser Glu Gly Val Leu Ser Val Arg Lys Arg Cys His Lys His Gln

290

295

300

Val Phe Asp Tyr Pro Gln Val Leu Gln Glu Ala Thr Phe Cys Val Val

305

310

315

320

Leu Arg Gly Ala Arg Leu Gly Gln Ala Val Leu Ser Asp Val Leu Gln

325

330

335

Ala Gly Cys Val Pro Val Val Ile Ala Asp Ser Tyr Ile Leu Pro Phe

340

345

350

Ser Glu Val Leu Asp Trp Lys Arg Ala Ser Val Val Val Pro Glu Glu

355

360

365

Lys Met Ser Asp Val Tyr Ser Ile Leu Gln Ser Ile Pro Gln Arg Gln

370

375

380

Ile Glu Glu Met Gln Arg Gln Ala Arg Trp Phe Trp Glu Ala Tyr Phe

385

390

395

400

Gln Ser Ile Lys Ala Ile Ala Leu Ala Thr Leu Gln Ile Ile Asn Asp

20509178 020502

405

410

415

Arg Ile Tyr Pro Tyr Ala Ala Ile Ser Tyr Glu Glu Trp Asn Asp Pro

420

425

430

Pro Ala Val Lys Trp Gly Ser Val Ser Asn Pro Leu Phe Leu Pro Leu

435

440

445

Ile Pro Pro Gln Ser Gln Gly Phe Thr Ala Ile Val Leu Thr Tyr Asp

450

455

460

Arg Val Glu Ser Leu Phe Arg Val Ile Thr Glu Val Ser Lys Val Pro

465

470

475

480

Ser Leu Ser Lys Leu Leu Val Val Trp Asn Asn Gln Asn Lys Asn Pro

485

490

495

Pro Glu Asp Ser Leu Trp Pro Lys Ile Arg Val Pro Leu Lys Val Val

500

505

510

Arg Thr Ala Glu Asn Lys Leu Ser Asn Arg Phe Phe Pro Tyr Asp Glu

515

520

525

Ile Glu Thr Glu Ala Val Leu Ala Ile Asp Asp Asp Ile Ile Met Leu

530

535

540

10009178-020502

Thr Ser Asp Glu Leu Gln Phe Gly Tyr Glu Val Trp Arg Glu Phe Pro
 545 550 555 560

Asp Arg Leu Val Gly Tyr Pro Gly Arg Leu His Leu Trp Asp His Glu
 565 570 575

Met Asn Lys Trp Lys Tyr Glu Ser Glu Trp Thr Asn Glu Val Ser Met
 580 585 590

Val Leu Thr Gly Ala Ala Phe Tyr His Lys Tyr Phe Asn Tyr Leu Tyr
 595 600 605

Thr Tyr Lys Met Pro Gly Asp Ile Lys Asn Trp Val Asp Ala His Met
 610 615 620

Asn Cys Glu Asp Ile Ala Met Asn Phe Leu Val Ala Asn Val Thr Gly
 625 630 635 640

Lys Ala Val Ile Lys Val Thr Pro Arg Lys Lys Phe Lys Cys Pro Glu
 645 650 655

Cys Thr Ala Ile Asp Gly Leu Ser Leu Asp Gln Thr His Met Val Glu
 660 665 670

Arg Ser Glu Cys Ile Asn Lys Phe Ala Ser Val Phe Gly Thr Met Pro
 675 680 685

10009178-020502

Leu Lys Val Val Glu His Arg Ala Asp Pro Val Leu Tyr Lys Asp Asp

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695

700

Phe Pro Glu Lys Leu Lys Ser Phe Pro Asn Ile Gly Ser Leu

705

710

715

<210> 7

<211> 746

<212> PRT

<213> Homo sapiens

<400> 7

Met Gln Ala Lys Lys Arg Tyr Phe Ile Leu Leu Ser Ala Gly Ser Cys

1

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Leu Ala Leu Leu Phe Tyr Phe Gly Gly Leu Gln Phe Arg Ala Ser Arg

20

25

30

Ser His Ser Arg Arg Glu Glu His Ser Gly Arg Asn Gly Leu His His

35

40

45

Pro Ser Pro Asp His Phe Trp Pro Arg Phe Pro Glu Pro Leu Arg Pro

50

55

60

10009178-020502

Phe Val Pro Trp Asp Gln Leu Glu Asn Glu Asp Ser Ser Val His Ile
65 70 75 80

Ser Pro Arg Gln Lys Arg Asp Ala Asn Ser Ser Ile Tyr Lys Gly Lys
85 90 95

Lys Cys Arg Met Glu Ser Cys Phe Asp Phe Thr Leu Cys Lys Lys Asn
100 105 110

Gly Phe Lys Val Tyr Val Tyr Pro Gln Gln Lys Gly Glu Lys Ile Ala
115 120 125

Glu Ser Tyr Gln Asn Ile Leu Ala Ala Ile Glu Gly Ser Arg Phe Tyr
130 135 140

Thr Ser Asp Pro Ser Gln Ala Cys Leu Phe Val Leu Ser Leu Asp Thr
145 150 155 160

Leu Asp Arg Asp Gln Leu Ser Pro Gln Tyr Val His Asn Leu Arg Ser
165 170 175

Lys Val Gln Ser Leu His Leu Trp Asn Asn Gly Arg Asn His Leu Ile
180 185 190

Phe Asn Leu Tyr Ser Gly Thr Trp Pro Asp Tyr Thr Glu Asp Val Gly
195 200 205

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Phe Asp Ile Gly Gln Ala Met Leu Ala Lys Ala Ser Ile Ser Thr Glu

210

215

220

Asn Phe Arg Pro Asn Phe Asp Val Ser Ile Pro Leu Phe Ser Lys Asp

225

230

235

240

His Pro Arg Thr Gly Gly Glu Arg Gly Phe Leu Lys Phe Asn Thr Ile

245

250

255

Pro Pro Leu Arg Lys Tyr Met Leu Val Phe Lys Gly Lys Arg Tyr Leu

260

265

270

Thr Gly Ile Gly Ser Asp Thr Arg Asn Ala Leu Tyr His Val His Asn

275

280

285

Gly Glu Asp Val Val Leu Leu Thr Thr Cys Lys His Gly Lys Asp Trp

290

295

300

Gln Lys His Lys Asp Ser Arg Cys Asp Arg Asp Asn Thr Glu Tyr Glu

305

310

315

320

Lys Tyr Asp Tyr Arg Glu Met Leu His Asn Ala Thr Phe Cys Leu Val

325

330

335

Pro Arg Gly Arg Arg Leu Gly Ser Phe Arg Phe Leu Glu Ala Leu Gln

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340

345

350

Ala Ala Cys Val Pro Val Met Leu Ser Asn Gly Trp Glu Leu Pro Phe

355

360

365

Ser Glu Val Ile Asn Trp Asn Gln Ala Ala Val Ile Gly Asp Glu Arg

370

375

380

Leu Leu Leu Gln Ile Pro Ser Thr Ile Arg Ser Ile His Gln Asp Lys

385

390

395

400

Ile Leu Ala Leu Arg Gln Gln Thr Gln Phe Leu Trp Glu Ala Tyr Phe

405

410

415

Ser Ser Val Glu Lys Ile Val Leu Thr Thr Leu Glu Ile Ile Gln Asp

420

425

430

Arg Ile Phe Lys His Ile Ser Arg Asn Ser Leu Ile Trp Asn Lys His

435

440

445

Pro Gly Gly Leu Phe Val Leu Pro Gln Tyr Ser Ser Tyr Leu Gly Asp

450

455

460

Phe Pro Tyr Tyr Tyr Ala Asn Leu Gly Leu Lys Pro Pro Ser Lys Phe

465

470

475

480

205020"82760001

Thr Ala Val Ile His Ala Val Thr Pro Leu Val Ser Gln Ser Gln Pro
 485 490 495

Val Leu Lys Leu Leu Val Ala Ala Ala Lys Ser Gln Tyr Cys Ala Gln
 500 505 510

Ile Ile Val Leu Trp Asn Cys Asp Lys Pro Leu Pro Ala Lys His Arg
 515 520 525

Trp Pro Ala Thr Ala Val Pro Val Val Val Ile Glu Gly Glu Ser Lys
 530 535 540

Val Met Ser Ser Arg Phe Leu Pro Tyr Asp Asn Ile Ile Thr Asp Ala
 545 550 555 560

Val Leu Ser Leu Asp Glu Asp Thr Val Leu Ser Thr Thr Glu Val Asp
 565 570 575

Phe Ala Phe Thr Val Trp Gln Ser Phe Pro Glu Arg Ile Val Gly Tyr
 580 585 590

Pro Ala Arg Ser His Phe Trp Asp Asn Ser Lys Glu Arg Trp Gly Tyr
 595 600 605

Thr Ser Lys Trp Thr Asn Asp Tyr Ser Met Val Leu Thr Gly Ala Ala
 610 615 620

205020"8450001

Ile Tyr His Lys Tyr Tyr His Tyr Leu Tyr Ser His Tyr Leu Pro Ala
 625 630 635 640

Ser Leu Lys Asn Met Val Asp Gln Leu Ala Asn Cys Glu Asp Ile Leu
 645 650 655

Met Asn Phe Leu Val Ser Ala Val Thr Lys Leu Pro Pro Ile Lys Val
 660 665 670

Thr Gln Lys Lys Gln Tyr Lys Glu Thr Met Met Gly Gln Thr Ser Arg
 675 680 685

Ala Ser Arg Trp Ala Asp Pro Asp His Phe Ala Gln Arg Gln Ser Cys
 690 695 700

Met Asn Thr Phe Ala Ser Trp Phe Gly Tyr Met Pro Leu Ile His Ser
 705 710 715 720

Gln Met Arg Leu Asp Pro Val Leu Phe Lys Asp Gln Val Ser Ile Leu
 725 730 735

Arg Lys Lys Tyr Arg Asp Ile Glu Arg Leu
 740 745

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<210> 8

<211> 676

<212> PRT

<213> Homo sapiens

<400> 8

Met Gln Ser Trp Arg Arg Arg Lys Ser Leu Trp Leu Ala Leu Ser Ala

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Ser Trp Leu Leu Leu Val Leu Leu Gly Gly Phe Ser Leu Leu Arg Leu

20

25

30

Ala Leu Pro Pro Arg Pro Arg Pro Gly Ala Ser Gln Gly Trp Pro Arg

35

40

45

Trp Leu Asp Ala Glu Leu Leu Gln Ser Phe Ser Gln Pro Gly Glu Leu

50

55

60

Pro Glu Asp Ala Val Ser Pro Pro Gln Ala Pro His Gly Gly Ser Cys

65

70

75

80

Asn Trp Glu Ser Cys Phe Asp Thr Ser Lys Cys Arg Gly Asp Gly Leu

85

90

95

Lys Val Phe Val Tyr Pro Ala Val Gly Thr Ile Ser Glu Thr His Arg

100

105

110

10009178.020502

Arg Ile Leu Ala Ser Ile Glu Gly Ser Arg Phe Tyr Thr Phe Ser Pro

115

120

125

Ala Gly Ala Cys Leu Leu Leu Leu Ser Leu Asp Ala Gln Thr Gly

130

135

140

Glu Cys Ser Ser Met Pro Leu Gln Trp Asn Arg Gly Arg Asn His Leu

145

150

155

160

Val Leu Arg Leu His Pro Ala Pro Cys Pro Arg Thr Phe Gln Leu Gly

165

170

175

Gln Ala Met Val Ala Glu Ala Ser Pro Thr Val Asp Ser Phe Arg Pro

180

185

190

Gly Phe Asp Val Ala Leu Pro Phe Leu Pro Glu Ala His Pro Leu Arg

195

200

205

Gly Gly Ala Pro Gly Gln Leu Arg Gln His Ser Pro Gln Pro Gly Val

210

215

220

Ala Leu Leu Ala Leu Glu Glu Glu Arg Gly Gly Trp Arg Thr Ala Asp

225

230

235

240

Thr Gly Ser Ser Ala Cys Pro Trp Asp Gly Arg Cys Glu Gln Asp Pro

10009178-020503

245

250

255

Gly Pro Gly Gln Thr Gln Arg Gln Glu Thr Leu Pro Asn Ala Thr Phe
 260 265 270

Cys Leu Ile Ser Gly His Arg Pro Glu Ala Ala Ser Arg Phe Leu Gln
 275 280 285

Ala Leu Gln Ala Gly Cys Ile Pro Val Leu Leu Ser Pro Arg Trp Glu
 290 295 300

Leu Pro Phe Ser Glu Val Ile Asp Trp Thr Lys Ala Ala Ile Val Ala
 305 310 315 320

Asp Glu Arg Leu Pro Leu Gln Val Leu Ala Ala Leu Gln Glu Met Ser
 325 330 335

Pro Ala Arg Val Leu Ala Leu Arg Gln Gln Thr Gln Phe Leu Trp Asp
 340 345 350

Ala Tyr Phe Ser Ser Val Glu Lys Val Ile His Thr Thr Leu Glu Val
 355 360 365

Ile Gln Asp Arg Ile Phe Gly Thr Ser Ala Asn Pro Ser Leu Leu Trp
 370 375 380

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Asn Ser Pro Pro Gly Ala Leu Leu Ala Leu Ser Thr Phe Ser Thr Ser
 385 390 395 400

Pro Gln Asp Phe Pro Phe Tyr Tyr Leu Gln Gln Gly Ser Arg Pro Glu
 405 410 415

Gly Arg Phe Ser Ala Leu Ile Trp Val Gly Pro Pro Gly Gln Pro Pro
 420 425 430

Leu Lys Leu Ile Gln Ala Val Ala Gly Ser Gln His Cys Ala Gln Ile
 435 440 445

Leu Val Leu Trp Ser Asn Glu Arg Pro Leu Pro Ser Arg Trp Pro Glu
 450 455 460

Thr Ala Val Pro Leu Thr Val Ile Asp Gly His Arg Lys Val Ser Asp
 465 470 475 480

Arg Phe Tyr Pro Tyr Ser Thr Ile Arg Thr Asp Ala Ile Leu Ser Leu
 485 490 495

Asp Ala Arg Ser Ser Leu Ser Thr Ser Glu Val Asp Phe Ala Phe Leu
 500 505 510

Val Trp Gln Ser Phe Pro Glu Arg Met Val Gly Phe Leu Thr Ser Ser
 515 520 525

1009178.020500

His Phe Trp Asp Glu Ala His Gly Gly Trp Gly Tyr Thr Ala Glu Arg
 530 535 540

Thr Asn Glu Phe Ser Met Val Leu Thr Thr Ala Ala Phe Tyr His Arg
 545 550 555 560

Tyr Tyr His Thr Leu Phe Thr His Ser Leu Pro Lys Ala Leu Arg Thr
 565 570 575

Leu Ala Asp Glu Ala Pro Thr Cys Val Asp Val Leu Met Asn Phe Ile
 580 585 590

Val Ala Ala Val Thr Lys Leu Pro Pro Ile Lys Val Pro Tyr Gly Lys
 595 600 605

Gln Arg Gln Glu Ala Ala Pro Leu Ala Pro Gly Gly Pro Gly Pro Arg
 610 615 620

Pro Lys Pro Pro Ala Pro Ala Pro Asp Cys Ile Asn Gln Ile Ala Ala
 625 630 635 640

Ala Phe Gly His Met Pro Leu Leu Ser Ser Arg Leu Arg Leu Asp Pro
 645 650 655

Val Leu Phe Lys Asp Pro Val Ser Val Gln Arg Lys Lys Tyr Arg Ser

10009178-020502

660

665

670

Leu Glu Lys Pro

675

<210> 9

<211> 330

<212> PRT

<213> Homo sapiens

<400> 9

Met Arg Cys Cys His Ile Cys Lys Leu Pro Gly Arg Val Met Gly Ile

1

5

10

15

Arg Val Leu Arg Leu Ser Leu Val Val Ile Leu Val Leu Leu Val

20

25

30

Ala Gly Ala Leu Thr Ala Leu Leu Pro Ser Val Lys Glu Asp Lys Met

35

40

45

Leu Met Leu Arg Arg Glu Ile Lys Ser Gln Gly Lys Ser Thr Met Asp

50

55

60

Ser Phe Thr Leu Ile Met Gln Thr Tyr Asn Arg Thr Asp Leu Leu Leu

65

70

75

80

10009178.020502

Lys Leu Leu Asn His Tyr Gln Ala Val Pro Asn Leu His Lys Val Ile

85

90

95

Val Val Trp Asn Asn Ile Gly Glu Lys Ala Pro Asp Glu Leu Trp Asn

100

105

110

Ser Leu Gly Pro His Pro Ile Pro Val Ile Phe Lys Gln Gln Thr Ala

115

120

125

Asn Arg Met Arg Asn Arg Leu Gln Val Phe Pro Glu Leu Glu Thr Asn

130

135

140

Ala Val Leu Met Val Asp Asp Asp Thr Leu Ile Ser Thr Pro Asp Leu

145

150

155

160

Val Phe Ala Phe Ser Val Trp Gln Gln Phe Pro Asp Gln Ile Val Gly

165

170

175

Phe Val Pro Arg Lys His Val Ser Thr Ser Ser Gly Ile Tyr Ser Tyr

180

185

190

Gly Ser Phe Glu Met Gln Ala Pro Gly Ser Gly Asn Gly Asp Gln Tyr

195

200

205

Ser Met Val Leu Ile Gly Ala Ser Phe Phe Asn Ser Lys Tyr Leu Glu

10009178 020502



210

215

220

Leu Phe Gln Arg Gln Pro Ala Ala Val His Ala Leu Ile Asp Asp Thr

225

230

235

240

Gln Asn Cys Asp Asp Ile Ala Met Asn Phe Ile Ile Ala Lys His Ile

245

250

255

Gly Lys Thr Ser Gly Ile Phe Val Lys Pro Val Asn Met Asp Asn Leu

260

265

270

Glu Lys Glu Thr Asn Ser Gly Tyr Ser Gly Met Trp His Arg Ala Glu

275

280

285

His Ala Leu Gln Arg Ser Tyr Cys Ile Asn Lys Leu Val Asn Ile Tyr

290

295

300

Asp Ser Met Pro Leu Arg Tyr Ser Asn Ile Met Ile Ser Gln Phe Gly

305

310

315

320

Phe Pro Tyr Ala Asn Tyr Lys Arg Lys Ile

325

330

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